

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-32. (Canceled)

33. (Currently Amended) A method of treating waste matter from animals, the method comprising:

- a) collecting waste matter from the animals;
- b) reversibly inhibiting urease activity in said collected waste matter; and
- c) separating said urease-activity inhibited waste matter into a urea-rich fraction

essentially consisting of a liquid comprising urea and other components soluble in liquid manure and a urea-lean fraction;

wherein said reversible inhibition comprises treating said collected waste matter by a method including at least one step selected from the group consisting of decreasing pH, buffering pH, at least one of decreasing and increasing pressure, at least one of decreasing and increasing ionic strength and combinations thereof reversible inhibiting urease activity of said collected waste matter before said separation of said urease activity inhibited waste matter into said urea-rich fraction and said urea-lean fraction.

34-35. (Canceled)

36. (Currently Amended) The method according to claim 33 [[34]], said method further comprising the step of

d) irreversibly inhibiting urease activity in said urea-rich fraction wherein said irreversible inhibition comprises a irreversible inhibition of urease activity comprising treating said collected waste matter, said urea-rich fraction, or both, with an irreversible inhibitor, said inhibitor being selected among the group consisting of comprising:

urea compounds such as selected from the group consisting of hydroxyurea, selenourea, phenylurea[[],] and thiourea;

hydroxamates such as amino acid hydroxamates, acetohydroxamate;

benzoeates such as selected from the group consisting of p-substituted mercuribenzoate, p-chloromercuribenzoate, p-hydroxymercuribenzoate[[],] and iodosobenzoate;

sulfonates such as p-chloromercuribenzenesulfonate;
imides such as N-ethylmaleimide;
phosphor compounds such as selected from the group consisting of
phosphoramidate[[,]] and phosphate;
monovalent ions such as selected from the group consisting of F⁻, Na⁺, and K⁺;
divalent metal ions such as selected from the group consisting of Hg²⁺, Cu²⁺, Fe²⁺,
Co²⁺, Zn²⁺, Ni²⁺, Mn²⁺, Cd²⁺, Ag⁺, Mg²⁺ (weak), Ba²⁺, Pb²⁺,
preferably Cu²⁺, Ag⁺, or Pb²⁺, or a and combinations thereof in form of at least one
water-soluble salt, and/or at least one electrochemically-released ion;
trivalent ions such as As³⁺; and
at least one nickel-complexing agent[[,]] selected from the group consisting of
preferably dimethylglyoxime, ethylenediamine, EDTA, or a and combinations
thereof, and
other compounds selected from the group consisting of such as
beta-mercaptopethanol, iodine, suramin, phenylsulfinate, and furacin.

37. (Canceled)

38. (Currently Amended) The method according to claim 36 [[37]], wherein said urea-lean fraction is in form of a liquid, a solid, or a combination thereof, or in form of a dried solid.

39. (Previously Presented) The method according to claim 36, wherein said irreversible inhibitor is recovered from said irreversibly urease-activity inhibited and separated urea-rich fraction.

40. (Previously Presented) The method according to claim 33, wherein said waste-matter comprises feces and liquid manure from farm animals.

41. (Previously Presented) A urea-rich animal waste-matter product, the product comprising urea produced from a urea-rich fraction of waste matter from animals wherein the

waste matter has been treated by a method as defined in claim 33, said urea-rich animal waste-matter product exhibiting a reversible inhibition of urease catalytic activity.

42. (Currently Amended) The product according to claim 41, wherein said urea-rich fraction exhibits substantially no urease activity, ~~preferably less than 50 unit/ml, more preferred less than 20 unit/ml, most preferred less than 5 unit/ml~~.

43. (Previously Presented) The product according to claim 41, wherein said urea-rich fraction exhibits minor residues of irreversibly urease-activity inhibitors.

44. (Currently Amended) The product according to claim 41, the product comprising animal waste-matter indicators, ~~preferably Na⁺, K⁺, Ca²⁺, PO₄²⁻, bilirubin, albumin, uric acid in ranges a range of from 200 mmol/l to 5 μmol/l~~.

45. (Previously Presented) A method of producing urea-formaldehyde from waste matter of animals, the method comprising:

a) producing a urea-rich fraction of the waste matter from the animals by a method comprising:

i) collecting waste matter from the animals;

ii) inhibiting urease activity in said collected waste matter; and

iii) separating said urease-activity inhibited waste matter into a urea-rich fraction essentially consisting of a liquid comprising urea and other components soluble in liquid manure and a urea-lean fraction; said inhibition comprising reversible inhibiting urease activity of said collected waste matter before said separation of said urease-activity inhibited waste matter into said urea-rich fraction and said urea-lean fraction; and

b) reacting said urea-rich fraction with methanal.

46. (Previously Presented) The method according to claim 45, wherein said waste matter comprises feces and liquid manure from farm animals.

47. (Canceled)

48. (Previously Presented) The product according to claim 42, wherein said urea-rich fraction exhibits minor residues of irreversibly urease-activity inhibitors.

Please add the following new claims:

49. (New) The method according to claim 36, wherein the divalent metal ions are selected from the group consisting of Cu^{2+} , Ag^+ and Pb^{2+} ,

50. (New) The method according to claim 42, wherein said urea-rich fraction exhibits less than 50 unit/ml urease activity.

51. (New) The method according to claim 42, wherein said urea-rich fraction exhibits less than 20 unit/ml urease activity.

52. (New) The method according to claim 42 wherein said urea-rich fraction exhibits less than 5 unit/ml urease activity.

53. (New) The method according to claim 44, wherein said animal waste-matter indicators are selected from the group consisting of Na^+ , K^+ , Ca^{2+} , PO_4^{2-} , bilirubin, albumin and uric acid.